/16 cont./

372 Naturally the Karaya try to maintain the fire as long as possible and make a new one only when necessary. On longer boat trips glowing pieces of wood are always taken along on a bed of sand.

252 Meat and fish are roasted on a spit over a hot fire or laid directly on glowing coals until the uppermost layer, or the skin, is completely charred. The ashy parts of the latter, in combination with the reserved juice, make the use of salt unnecessary to a certain degree. Only the Karayahi have begun to become [243] accustomed to European salt. Salty soils, such as are found [317] in the campos at the so-called barreiros /clay pits/, as well as the ash of various woods, must serve as substitutes. Fish are probably also boiled.

Corn on the cob, aipim roots, sweet potatoes, and some palm fruits are likewise roasted over the fire.

The preparation of manioc is much more primitive than among the Xingu and Amazon tribes. The roots, provided with [412] deep cuts, are put in water for several days for maceration, then freed of the skins with knives or sharp shells, and pulverized on the grating board (ărană), a biconvex board about three centimeters thick, with several rows of short buriti thorns in the middle (Pl. VIII /see p. 110/, 4).

The pulverized mass is pressed with the hands, probably [415] also with the aid of stones, to remove completely the poisonous juice, the largest part of which has already been taken out by the maceration, and then, washed and drained in peculiar little baskets (uăriri, see p. 41) plaited out of flexible cipos, dried in the air. By drying it in shallow pots one thus obtains the "water flour" (farinha d'agua) also generally widespread on the Amazon. Because of fermentation during the maceration, it has a slightly sour flavor, but can be kept much longer than the "farinha secca" /dry flour/ of trade, made out of the fresh root. This type of preparation, however, does not seem to be the original one practiced by them. More often, in accordance with an old national custom, the dried mass (puva, beerŏ) is baked in large loaf-like lumps after several washings. Finally, small flat

/281 cont./

Brazilian inhabitants, to be noted. This shows us how tenaciously the Karajá cling to their nationality, in spite of long association with their civilized neighbors.

C. The exploitation of the natural kingdom varies in intensity; the mineral kingdom is exploited least, the vegetable kingdom, which can, of course offer the Indian the most abundant resources, the most.

The mineral kingdom is as yet little utilized. Stones are rare in the alluvial valley of the Araguaya; at most there is small rubble on a few sandbanks; otherwise fine sand covers the river valley. On the steep vertical banks there is canga, a ferrous sandstone which cannot be utilized except perhaps in larger pieces which, with plaiting around them, serve as anchors for turtle tackle. Stones are found only north of the Tapirapé, and all of the few stone implements that were present came from there.

More frequently used is the gray clay which is embedded in narrow layers in the sandstone of the high banks. It is used for pottery. This art, however, in its technique and form, is still very primitive; ornamentation is entirely lacking. The vessels are shaped according to their practical use; they are made by the women. Apparently the women are more practical and less artistically endowed than the men, for we find everywhere that the things made by the women are simple and practical, those by the men, by contrast, show pleasing forms and ornamentation.

Earths are also but little utilized as colors.

The animal kingdom is utilized somewhat more intensively for technical purposes by the Indians. Bones and teeth of mammals are worked into tools and ornaments; mussel shells serve as implements. The bird kingdom is most abundantly drawn upon: their brilliant feathers are used for magnificent ornaments such as scarcely any other Indian tribe displays in this abundance. In order to have the material for this always at hand, the Indians keep young birds, taken from the nest, tamed in their huts in order to pluck them from time to time. The wax of bees plays an important role as gluing material.

/282 cont./

323 317 862 E. Earths, besides being used as colors (see under "Coloring Substances" /see p. 240 /), are used only for making pottery, which is practiced by the women. The material used is the grayish-white clay (z̃oũ) that occurs in strata on the steep banks and, in conical shape, is stored in piles in the villages. For use it is first pulverized very fine and then mixed with a number of additions. The most important addition is mãɨ̃zĩ̃ (Pl. 58, Ill. 1), a creation designated by the Brazilian-speaking Indians as the nest of the cupim d'agua, which is found in huge quantities as a covering of the roots and lower branches of the trees along the banks. One finds it piled up in great heaps near the villages. It is burned in the fire, then pounded, and, mixed with water, added to the pottery clay.

323 824 Another addition is obtained from the purple blossom (ãdẽnã̃) of a tree; the blossoms are burned and their ashes mixed in with the clay. This statement by Pedro seems to correspond to the custom of making the clay more resistant by means of the flinty content of the ashes of certain creepers, as reported by Ehrenreich from C. de Magalhães ("Beiträge," p. 19).

The shaping of the vessels is done in the following manner: The bottom is shaped out of a flat cake, on which a low edge is simultaneously worked out. A potter's wheel is absent; an old pot-bottom or most often a rod-sieve, the structure of which is imprinted in the soft clay, serves as a base (Pl. 58, Ill. 2). Smaller vessels are shaped on the hand. /283/ The potter then mixes the gray clay with water, twirls it between the palms of her hands into a roll, places this on her left lower-arm, and, with the right index finger, presses a longitudinal groove into it (Ill. 129). The roll is now placed with the groove on the edge of the bottom piece and is then pressed flat toward the top (Ill. 130). It is so arranged that the roll corresponds exactly to the circumference of the vessel. Roll is placed upon roll in this manner and then smeared together with the hand or even with a smoothing stone, until the vessel is finished.

/284 cont./

415 very pronounced in the pottery in the villages from Leopoldina
199 to São José. These villages furnish the Brazilians with cooking
[439] and eating vessels, so that in São José and Leopoldina one finds
[531] Indian vessels almost exclusively. They have already been adapted, however, to the taste of the Brazilians: the small eating dishes have the typical bowl-shape and on the edge bear a decoration in red color (Ill. 96). The water-cooling vessels, too, which the Indians in the villages mentioned make for the Brazilians, show the purely Brazilian type and red decoration.
[386] The red designs are made with an earth color. The red earth
[317] for this (zāzĕ, zōŭbūlĕ) comes from the Barreira do Veado and is taken along to São José and Schischá by the Indians of the north horde traveling south for arrow cane, in order to sell it to the Indians
[531] there. It is applied mixed with water. The true Indian vessels are undecorated.

192

Ill. 133.
Old clay-vessel.

I obtained in Schischá a most peculiar vessel, whose origin is unknown (Ill. 133). It is irregularly spotted dark red and black as a result of uneven firing; it is apparently made out of very crude clay and in a very primitive fashion. The two knobs on the edge, which are slightly hollowed out on top, are striking. The vessel was found several decades ago in the sand of a sandbank by Indians from Schischá on a journey downstream. The Indians themselves were unable to say where the vessel might come from.

415 I did not see anywhere the pot and bowl forms brought back by
114 Ehrenreich: shallow, round dishes (Berlin 3862), flat, round plates (3863 and 3864), flat, oval plates (3865), low elliptical double bowls with a dividing wall running lengthwise (3866), cylindrical pot with turned-down rim and bast hanging-band (3861), double conical pot with hanging band (3858), and clay spoons (3878).

6:Cook M-3,4 (ca. 1900) 1909
SP9 Caraja SP9

Brazil.

252 Fish and game are sometimes prepared for eating by cooking in a clay pot; but the usual method is to impale the meat on a stake which is set up in the ground by the camp-fire and inclined over it; or else to place it upon glowing coals and allow it to remain there until the outside is burned to a [263] crisp. As a portion of this crisp part is naturally reduced to ashes, a saline substance is produced, which, mingling with the juice, flavors the meat. Various root foods, and also ears of corn, are prepared for eating by roasting over the fire.

317 Besides the ash salts just mentioned, the Karayá contrive [263] to extract a little sodium chloride from certain earth banks which contain a small percentage of this substance. It is only recently that they have begun to use salt obtained from the civilized world. Banks of saline earth are easy to locate as the wild beasts frequent these places to "lick." In the cattle-raising regions, a herdsman is much pleased to have one or more of these briny spots in his territory so that his cattle may thereby obtain salt.

184 "The poor tame brothers" of the Sambiða, the Karayáhy [241] branch of the family, though they are supplied to a limited extent with axes and grubbing hoes, do very little planting. [231] Neither have they many domesticated creatures. Those they do have are largely birds of the parrot family, which they regard with affection, though their feathers are plucked to be used in ornament making.